

A photograph of a smiling Black female teacher in a classroom, holding a laptop and gesturing towards students. Several students in the foreground have their hands raised, indicating an interactive learning environment. The image is overlaid with a blue tint.

NATIONAL ACADEMY *of* EDUCATION

EVALUATING AND IMPROVING
TEACHER PREPARATION PROGRAMS

Evaluating the Clinical Component of Teacher Preparation Programs

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INTRODUCTION

This paper focuses on the evaluation of the clinical component of preservice teacher preparation. However, it is difficult to separate the clinical component from other contextual and structural elements of a teacher preparation program, particularly the academic knowledge for subject matter and professional practice presented in university courses because the application of each is required in facilitating student learning. A teacher preparation program is defined as a system of interconnected and interdependent learning experiences, including academic and clinical experiences, intended to facilitate the acquisition of an academic knowledge base for teaching, the ability to apply that knowledge base to practice, and the development of capacity to learn in and from practice. The knowledge base for teaching and teacher preparation includes discipline-specific knowledge from arts and sciences, professional knowledge from coursework in teacher preparation, and knowledge gained from practice during clinical experiences in schools, classrooms, and communities involving the application of academic knowledge to practice. Quality programs are characterized by coherence within and across courses and clinical experiences, continuity in the developmental sequencing of increasingly complex learning, and consistency over time in the academic knowledge and clinical experiences forming the program (Darling-Hammond & Bransford, 2005; Flores, 2016; Hollins & Warner, 2021).

Typically, the evaluation of preservice teacher preparation programs conducted by state and national agencies includes the clinical component. These evaluations tend to focus on inputs such as admission policies, faculty qualifications, course requirements, quality of student teaching experiences, and fieldwork policies and records. Output measures include teacher licensure tests, surveys of program graduates and their employers, and impact on student learning (Feuer et al., 2013). While these input and output measures are important, they may be insufficient for informing program improvements that enable candidates to generate the expected learning and developmental outcomes for P-12 students. The discussion here is focused on identifying high value quality indicators for knowledge inputs, developmental progression, outcomes, and impact that increase the probability for improving practices in the clinical component of preservice teacher preparation that enable candidates and graduates to better facilitate learning for P-12 students, especially those who are traditionally underserved. This approach is especially useful for teacher preparation program providers engaged in continuous program improvement.

In this paper, clinical experience in teacher preparation refers to the *application of academic knowledge to practice* in classrooms, schools, and communities where candidates learn to *contextualize* the curriculum, learning experiences, and other teaching practices for specific individuals and groups of students. The application of knowledge to practice in clinical experiences requires that the professional knowledge presented in coursework is stable, consistent, trustworthy, and is observable and applicable to practice. Contextualizing teaching and facilitating learning require deep knowledge of the interconnectedness among knowledge of learners, learning, subject matter, pedagogy, and learning outcomes when planning and enacting learning experiences. Candidates can learn to contextualize teaching practices through a variety of approaches, including (1) gaining deep knowledge about students' prior school experience and performance, culture and socialization, and home and community life; (2) observation, documenta-

tion, and analysis of students' responses to learning experiences, the social context in the classroom, and relationships among students; and (3) support from mentor teachers and program supervisors through guidance, feedback, coaching, and demonstrating specific teaching practices as required for learning to contextualize and apply academic knowledge to practice.

In this paper, we describe and provide examples of promising practices for several types of clinical experiences with different purposes and approaches including traditional student teaching, special purpose practicums, internships, and residencies. The published descriptions of clinical experiences are often lacking in detail, especially those based on statewide residency initiatives started within the past several years. In the case of recent statewide initiatives, we used information from state legislative documents; calls for applications for funding; websites for state departments of education, universities, local education agencies, teacher residency programs, and the National Center for Teacher Residencies (NCTR); and conversations with program directors. We do not present a separate critique for each type of experience. Rather, the attributes represented in these clinical experiences were used in developing the approach to evaluating clinical experiences presented in the final section of this paper. The discussion throughout this paper addresses the theoretical perspective, the focus or purpose of the clinical experience, and the role of the mentor teacher in the process of learning to teach.

The cognitive apprenticeship theoretical perspective (Dennen & Burner, 2008; Lave & Wenger, 1991), an attribute common across most types of clinical experience, is given particular attention because it is especially powerful in informing approaches for learning from practice. A cognitive apprenticeship in clinical experiences refers to the identification of a mentor teacher who serves as a model of "good practice" and provides guidance and feedback for candidates learning to replicate the mentor's teaching practices. The implementation of this theoretical perspective can facilitate the application of knowledge from academic coursework to practice, or it can serve to replicate the teaching practices and learning outcomes of the mentor teacher. Replicating the teaching practices of the mentor teacher may be insufficient for supporting candidates' ability to adapt teaching practices for different individuals and groups of students. The cognitive apprenticeship theoretical perspective is less likely to contribute to the "washing out" of knowledge gained from coursework when the role of the mentor teacher is that of supporting candidates in contextualizing and applying academic knowledge to practice. Furthermore, developing teaching competence in clinical experiences is influenced by the quality of the knowledge base presented in courses and the design of clinical experiences. This does not suggest that a separate curriculum is required for clinical experience, but it does indicate that the conditions, context, and practices for clinical experiences need to be well designed, directly linked to coursework, and systematically implemented as discussed in the final section of this paper. The clinical experience is a process that involves cumulative and increasingly complex levels for the application of academic knowledge to practice, learning from practice, and demonstrating teaching competence for facilitating student growth and development.

A second attribute common across the different types of clinical experiences is the cooperating or mentor teacher. Ideally, the role of the cooperating teacher is to support candidates in the application of academic knowledge to practice and in learning from practice how to contextualize learning experiences for specific individuals and groups

from different cultural and experiential backgrounds. The cooperating teacher models practices for applying academic knowledge in learning experiences and framing the curriculum for students from different cultural and experiential backgrounds. The cooperating teacher provides guidance and feedback for candidates and participates in the evaluation of candidates' progress toward competent teaching. The selection and training of mentor teachers is frequently mentioned in the literature, but there are few details regarding such practices. Consistency and trustworthiness in the practices of cooperating and mentor teachers require carefully designed procedures, protocols, and tools that facilitate reciprocal learning among candidates, practitioners, and program supervisors. In this situation of reciprocal learning, candidates learn from practitioners how to contextualize academic knowledge, practitioners learn about new research and practice taught in university courses, and faculty learn about the approaches and challenges in the application of academic knowledge to practice. This type of reciprocity in learning is essential for advancing knowledge and practice in teaching and teacher preparation.

An attribute specific to teacher residency programs is a focus on the preparation of teachers for shortages in schools serving urban and underserved students, and shortages in specific subject areas. There is an emphasis on recruiting and preparing teachers of color. The teacher residency programs included in this discussion aim to train teachers in the application of culturally relevant pedagogy and trauma-sensitive teaching practices; however, the examples presented do not claim to have reduced the disproportionately harsh discipline administered to underserved students or to have significantly improved the academic performance of these students. This raises questions about the applicability and trustworthiness of the knowledge base for teaching and teacher preparation, and the procedures, protocols, and instruments used to support learning from practice. These issues are discussed in a later section of this paper.

The discussion in this paper is organized into four sections. The first section addresses variations in clinical experiences related to the application of academic knowledge to practice in classrooms and other settings. The second section is focused on community-based clinical experiences addressing the preparation, recruitment, and retention of teachers for schools serving urban and underserved students. The third section describes statewide initiatives for teacher residencies that address teacher shortages in specific subject areas and schools facing staffing challenges. The final section presents a proposal for a research-based approach for evaluating the clinical component of teacher preparation focused on quality indicators with the highest value in developing teaching efficacy.

APPROACHES TO THE CLINICAL COMPONENT OF TEACHER PREPARATION

Throughout this paper, *teacher preparation program* refers to an educative system intended to convey the professional knowledge, skills, and habits of mind necessary for individuals to successfully engage in the professional practice of teaching and to qualify for state teaching licensure. Many teacher preparation programs are housed and administered in universities; however, teacher preparation occurs in multiple contexts in the United States, including P-12 schools, school districts, and other local agencies.

The *clinical component* refers to experiences in the program occurring in P-12 classrooms, schools, and communities that provide candidates opportunities to apply academic knowledge to practice and to contextualize the curriculum, learning experiences, and other teaching practices for specific individuals and groups of students. This section describes three primary approaches to the clinical component of preservice teacher preparation programs: (1) student teaching, (2) internships, and (3) special purpose practicums. These labels are used in a variety of ways across the field, often with little precision. To provide clarity of definition, we describe conceptually and structurally coherent examples drawn from the scholarly literature and highlight key characteristics common to coherent examples of each approach.

Student Teaching

Student teaching is the most ubiquitous approach to clinical experience in teacher preparation. In traditional student teaching, a teacher candidate, referred to as a *student teacher*, is placed in the classroom of a P-12 mentor teacher full-time during the culminating semester or quarter of the teacher preparation program (Greenberg et al., 2011). Unlike early or intermediate field experiences that may also be included in a teacher preparation program, student teaching is usually not integrated with any coursework (Clift & Brady, 2005). Instead, in most cases, student teaching is intended as a culminating experience for candidates to develop and demonstrate competency in all aspects of teaching practice.

Student teaching is usually guided by a cognitive apprenticeship perspective on learning teaching. In this perspective, the student teacher observes the mentor teacher early in the experience and gradually takes responsibility for different aspects of the cooperating teacher's practice. In such an approach, the mentor teacher provides a representation of teaching practice that the student teacher is expected to approximate as faithfully as possible (Grossman et al., 2009). For an approach designed around this particular theoretical perspective to succeed, the teacher preparation program needs to recruit mentor teachers capable of enacting exemplary teaching that is compatible with the program's philosophical stance and theoretical perspective. It is important to note that, while practitioner experience and expertise play an important role in establishing program conceptual and structural elements, maintaining program coherence is predicated on shared understanding of the conceptualization of *quality teaching* adopted by the program. Identifying and recruiting sufficient numbers of such mentor teachers, particularly within urban and rural contexts, has proven to be a consistent challenge for teacher preparation programs (Anderson & Stillman, 2010; Engel & Cannata, 2015; Goodlad, 1990). This challenge in particular has led some programs to consider alternative approaches.

Bullough et al. (2003) described an alternative to the traditional one-on-one cognitive apprenticeship of student teaching that involved placing student teachers in pairs in the classroom of a single mentor teacher. This approach was based on an understanding of learning teaching as *collaborative problem-solving* (Bullough et al., 2003). The intent of the approach was to disrupt the continued replication of teaching practices that were not serving the needs of all students, but that were being continuously passed from mentor teacher to teacher candidate in traditional student teaching models across the

country. In particular, the approach was intended to deconstruct the conceptualization of teaching as an individual, isolated activity, in which teachers work alone, plan alone, and solve problems alone. In the approach described by Bullough et al. (2003), the two teacher candidates and their mentor teacher met daily to deconstruct learning experiences from the previous day and plan learning experiences for the following day. The mentor teacher initially served as the team leader, but all three individuals were considered part of the planning and teaching team. As the semester progressed, the mentor teacher gradually released responsibility until the two candidates were leading the majority of the planning and enacting of learning experiences. The researchers found that this approach led to shared responsibility for the classroom, and to a shift in the perspective of both the candidates and the mentor teacher on the role of teachers and the importance of collaboration in teaching practice.

Preparation of mentor teachers for traditional student teaching has been criticized for decades as usually involving a cursory orientation to program logistical procedures with little substance or attention provided to theories or methods guiding the facilitation of candidate learning (Guyton, 1989; Lafferty, 2018; Sudinza et al., 1997). Justen et al. (1999) studied the impact of taking a university-sponsored supervision course on mentor teacher beliefs about appropriate student teaching supervision where it was found that taking such a course had no impact on mentor teacher beliefs. However, Lafferty (2018) studied factors influencing mentor teaching practices and found that preparation by the teacher preparation program focusing on specific practices expected of the mentor teacher and the importance of those practices was impactful in shaping mentor teacher engagement. For example, Lafferty (2018) indicated that mentor teachers who were provided with procedural training on how to develop and communicate rationales for their teaching decisions and how to ask candidates to justify and provide evidence for their own teaching decisions led to both increased application of those practices by the mentor teacher in the classroom and to increased candidate perception of the quality of their clinical preparation.

Application of theory to practice in student teaching is monitored primarily by the mentor teacher and is frequently dependent on the disposition and knowledge of the mentor teacher rather than on program conceptual or structural elements (Bullough et al., 2003). Candidates in student teaching are usually guided and evaluated by both their mentor teacher and a supervisor appointed by the teacher preparation program (commonly called a *university supervisor*). Standardized observation and evaluation rubrics adopted by the teacher preparation program, and sometimes mandated by the state licensing authority, are used to evaluate candidates throughout student teaching.

In one of the first comprehensive reviews of scholarly literature related to student teaching, Guyton and McIntyre (1990) argued that, despite its ubiquity in teacher preparation, “student teaching has failed to evolve much beyond the medieval apprenticeship training model, has not developed a sound theoretical base, and has no uniform or standard structure” (p. 514). As in the medieval apprenticeship model that Guyton and McIntyre (1990) referenced, historically, the quality of student teaching has been judged by input measures, such as the status of the mentor teacher (indicated by years of teaching experience and level of education) and by the duration (number of weeks) of the student teaching experience. While these elements remain an important part of the conversation about the evaluation of student teaching quality, the scholarly literature

does not indicate that adjustments to these elements have corresponded with improvements in candidates' ability to apply academic knowledge to practice or to better learn from professional experience.

In more recent decades, scholars have emphasized the degree of conceptual coherence existing between the student teaching experience and program coursework as an essential indicator of quality. Guyton and McIntyre (1990) determined that student teaching frequently lacked coherence with program coursework and that cooperation between the three primary actors in the student teaching triad—the mentor teacher, university supervisor, and student teacher—was often idiosyncratic. Canrinus et al. (2019) studied candidates' perceptions of program coherence at three different universities in Finland, Norway, and the United States. They found that a major factor in candidate perception of total program coherence was the degree to which they were provided opportunities to apply what they had learned in their courses during field experiences, and the degree to which they were able to observe P-12 teachers employing similar methods and pedagogies to those learned in university courses. Lack of coherence between program structural and conceptual elements significantly hinders the development of candidates' ability to contextualize and apply academic knowledge to practice for the purpose of facilitating P-12 students' academic, social, and psychological development.

Internships

An internship is a yearlong clinical experience in a single setting. As Silvernail and Costello (1983) articulated, internships operate under the assumption that more classroom experience leads to more effective teachers. While research in teacher preparation has not fully corroborated this assumption (Ronfeldt & Reininger, 2012), it is an assumption that has and continues to exert influence on clinical experience in preservice teacher preparation. In an internship, teacher candidates, or *interns*, may or may not be listed as the teacher-of-record in their placement classroom. Internships can be paid (e.g., Smith & Souviney, 1997) or unpaid (e.g., Corcoran & Andrew, 1988). Though the term *internship* is often applied to any yearlong clinical experience, internships were first popularized in the United States as a vehicle for school districts to certify returning World War II and Korean War veterans (Smith & Souviney, 1997). Districts were able to hire these individuals as teachers-of-record, provide mentorship and support for 1 year, and, if satisfied with the teaching performance of the individual, recommend licensure.

Internships that provided the means for districts to certify teachers with limited or no university participation re-emerged in the late 1980s, resulting from the convergence of distrust in university-based teacher preparation, increasing demand for teachers, and difficulties staffing mathematics and science positions, particularly in urban districts (Jones, 1983; Smith & Souviney, 1997). These types of internships have endured in a variety of contexts, with some providing precedents for the teacher residencies discussed in a later section of this paper.

During the 1980s, many university-based teacher preparation programs adopted internship approaches for culminating clinical experiences. In response to recommendations by the Carnegie Forum on Education and the Economy (1986) and The Holmes Group (1986), some teacher preparation programs moved to a post-baccalaureate struc-

ture, where candidates would complete a 4-year undergraduate degree and a 1-year post-baccalaureate internship, receiving teacher certification after successful completion of the fifth-year internship. The graduate credits received for the internship could often be applied to a master's degree.

Some clinical experiences that are discussed in the literature as internships operate under the same cognitive apprenticeship perspective as student teaching (discussed earlier), with the primary difference from traditional student teaching being the extended period of time provided for the candidate to replicate the practice of the mentor teacher. Others, however, expanded the conceptualization of the apprenticeship in clinical teacher preparation from one in which the candidate is apprenticed to a single master teacher to one in which a candidate is in a social and professional context involving multiple mentors who can model their particular expertise for the candidate and provide guidance for applying that expertise in the specific context (see Box 1 for an example).

BOX 1
University of California, San Diego, Internship Experience

The University of California, San Diego (UCSD), secondary preservice teacher preparation program partnered with four public school districts in the County of San Diego to engage in a guided practice internship experience (Rogoff, 1990; Smith & Souviney, 1997). Interns were hired by these districts as part-time teachers of record and compensated with a combination of state and district funds at rates negotiated among the districts, the university, and the teachers' union. For each intern, the university and the school district co-selected a faculty advisor who taught at the same school in the same academic discipline as the intern. The advisor's role was to facilitate the intern's connection to district resources, including other expert teachers and support staff, and to provide consultation and collaboration in pedagogy, management, and curriculum development.

The university also assigned each intern a university supervisor who was a full-time faculty member in teacher preparation, taught methods courses in the intern's area of primary content, and who had previously taught the intern in university educational coursework leading to the culminating clinical experience. The supervisor was responsible for monitoring the intern's ability to apply knowledge gained in teacher preparation program coursework to practice. The supervisor evaluated the intern's progress, but because the intern was an employee of the district and a teacher candidate, the building administrator also evaluated the intern's teaching performance.

Surveys of administrators employing UCSD interns after graduation indicated that employers perceived intern confidence and knowledge of the subject matter as exceeding that of candidates who undertook traditional student teaching (Smith & Souviney, 1997). However, employers did not perceive that interns exhibited any more competence in classroom management, a priority for the districts, or in facilitating instruction in multicultural settings, a priority for the university. One of the major outcomes of the UCSD program seemed to be its positive impact on teacher retention. According to Smith and Souviney (1997), 90 percent of UCSD interns were still teaching 5 years following certification, contrasted with the 50 percent average for all new teachers in the state of California at that time.

The literature on internships in preservice teacher preparation indicates that quality internships are characterized by equal partnerships between and reciprocal benefits for participating districts and the teacher preparation program, deliberately articulated mentoring roles and supports, and quality long-term relationships between interns and supervisors (Corcoran & Andrew, 1988; Smith & Souviney, 1997). Teacher retention tends to be one of the primary indicators by which the success of internships is judged (Corcoran & Andrew, 1988; Smith & Souviney, 1997). It is important to consider that teacher retention alone does not necessarily lead to increased academic, social, and psychological development for P-12 students. Student outcomes are related to pedagogical practices, and the teacher retention findings noted above do not differentiate between the retention of teachers employing effective and ineffective pedagogical practices.

Special Purpose Practicums

Special purpose practicums are commonly incorporated into preservice teacher preparation as early and intermediate clinical experiences prior to the culminating student teaching or internship experience (Warner & Hallman, 2017). This paper uses the nomenclature *special purpose practicum* rather than simply *practicum* to avoid confusion with the common international use of the term *practicum* to refer to the culminating clinical experience in a teacher preparation program, commonly referred to in the United States as *student teaching* or *internship*. Special purpose practicums are often tied to specific courses and are intended to provide candidates with the opportunity to observe the application of knowledge to practice, or to apply knowledge to practice. Some practicums place candidates in clinical settings for a set number of hours per week over the course of a quarter or semester (e.g., Hallman & Burdick, 2011). Other practicums are organized as short-term, intensive experiences, where candidates enter a clinical setting full- or nearly full-time for a period of a few weeks (e.g., Moore, 2003). In the case of some practicums, coursework becomes almost completely embedded within the clinical experience, as is the case in the mathematics methods experience described by Kazemi and Waage (2015) as a *practice-based methods course*, where the methods instructor and cooperating teacher jointly prepare preservice teachers in teaching methods and guide the application of those methods within the cooperating teacher's classroom. The theoretical perspectives guiding special purpose practicums vary depending on the context and purpose. Some operate on cognitive apprenticeship models similar to those described earlier in the discussion of student teaching and internships, others use models such as a constructivist perspective (see Box 2 for an example).

The wide variation in design and intended outcomes of special purpose practicums makes generalizing characteristics of quality a difficult task. However, these practicums are intended to provide candidates with the opportunity to observe the application of knowledge to practice or to apply knowledge to practice. The quality of such practicums, then, should be gauged by the degree to which the practicum design provides such opportunities.

BOX 2

Learning Teaching as an Interpretive Practice/Process Practicum

A special purpose practicum enacted within a partnership between a graduate teacher preparation program in a southern California public university and a local high school used a constructivist perspective of *learning teaching as an interpretive practice/process* (L-TIP) (Hollins, 2011; Linton & Gordon, 2015). This practicum, connected to a required course in curriculum theory, centered on an embedded signature assessment called a *clinical classroom rotation*. This clinical classroom rotation required candidates to engage in three phases, each based on one of the L-TIP epistemic practices (Hollins, 2011)—focused inquiry, directed observation, and guided practice. All three phases were linked to the classroom context of a specifically chosen urban secondary science classroom and facilitated by the university instructor and the classroom teacher at the clinical site.

During the focused inquiry phase, candidates analyzed learning materials from the clinical site by using knowledge gained in their curriculum theory course to consider relationships between the theoretical perspective guiding the learning experience and the learning context in that specific secondary science classroom. Candidates then collaborated with their instructor and the classroom practitioner to construct a directed observation form that would facilitate their ability to focus on particular elements from their analysis of curricular materials during an observation of a live classroom. Next, during the directed observation phase, candidates observed the classroom practitioner enacting a learning experience with secondary science students and applied the directed observation form that they co-created during the focused inquiry phase. Afterward, they discussed, questioned, and interpreted the results of their observation with the classroom practitioner. Finally, during the guided practice phase, candidates had the opportunity to translate their learning from previous phases into the design and enactment of a learning experience, with guidance from the university instructor and the classroom practitioners. By studying candidate experiences during the clinical classroom rotation, Linton and Gordon (2015) found that enactment of this particular type of clinical experience allowed teacher educators to construct a detailed picture of candidates' knowledge of and ability to engage in interpretive teaching practice.

Discussion

Most examples of clinical experience currently represented in the scholarly literature on preservice teacher preparation are grounded in a form of cognitive apprenticeship that Hollins (2015) referred to as *learning teaching through representation and approximation of practice*. Successful preparation of teachers in such a paradigm requires strong models of practice in the form of highly successful mentor teachers and supportive clinical settings, as well as placements of sufficient duration for candidates to adopt or faithfully approximate the practice of their mentors. As such, in several of the approaches described above, teacher educators have attempted to improve clinical preparation by extending the duration of clinical experiences. However, evidence from the scholarly literature does not indicate that extending the duration of clinical experiences is, itself, sufficient for enabling program graduates to improve the academic, social, and psychological growth and development of P-12 students.

For example, Spooner et al. (2008) compared the perceptions of two groups of candidates, one in a traditional student teaching setting and one in a yearlong internship, at the end of their culminating clinical experience. The study found that yearlong interns

perceived their knowledge of school policies and their relationships with mentors significantly more positively than candidates engaged in traditional student teaching. However, they reported no statistically significant difference between the two groups' perceptions of their teaching abilities.

Ronfeldt and Reininger (2012) surveyed more than 1,000 student teachers across multiple licensure programs before and after completing student teaching. They found positive correlations between candidates' perceptions of the quality of their culminating clinical experience with candidates' perceptions of their preparedness, teaching efficacy, and interest in working with traditionally underserved students. They did not, however, find statistically significant correlation between increased length of clinical experience and the preceding variables. In fact, the largest positive effect they observed occurred in short clinical experiences in schools serving high percentages of Black and Latinx students.

In a large-scale study on the effects of different pathways for teacher preparation in New York City, Boyd et al. (2009) studied the effects of different teacher preparation program characteristics on the academic achievement of elementary students. Among other findings, the authors established a positive correlation between elementary student academic achievement and the degree to which experience and coursework undertaken in their teacher preparation program reflect the context and curriculum of the teacher's first year in the classroom. They also established positive correlations between student academic achievement and program oversight of student teaching, which they defined as the program setting a minimum number of years of teaching experience in the selection of mentor teachers (as determined by the program, not the district), and program supervision of candidates that occurred five times or more during the student teaching experience.

In a study of six teacher preparation programs in Washington state, Goldhaber et al. (2017) found a correlation between administrator ratings of teacher effectiveness and teachers teaching in schools whose student demographics were similar to the demographics of the school in which they student taught. This supports the findings of Boyd et al. (2009), discussed above, regarding the impact of similarity in context and curriculum between teacher preparation experiences and the first year in the classroom. Goldhaber et al. (2017) interpreted these findings to suggest that teacher education programs should use teacher candidates' plans for their first year in the classroom to inform selection of student teaching placements. An alternate interpretation of these findings could be that clinical experiences focusing on the replication of mentor teacher practice and grounded in a cognitive apprenticeship may not adequately prepare candidates to be adaptive professionals able to enact competent teaching in a wide variety of environments. However, the present reference in both the Council for the Accreditation of Educator Preparation standards and in the 2018 Report of the American Association of Colleges for Teacher Education Clinical Practice Commission to community partnerships in teacher preparation and community-based experiences for candidates holds promise for developing the ability to adapt the curriculum and pedagogy for students from different cultural and experiential backgrounds. These experiences provide opportunities for candidates to learn about the historical, cultural, social, and political context in which students are socialized and that can inform contextualizing learning experiences and framing the curriculum.

COMMUNITY PARTNERSHIPS IN TEACHER PREPARATION

Schooling is a very complex process that involves a reciprocal relationship between the school and the community in which students and their families live. The conditions, practices, and values in communities influence the experiences, perceptions, and values that students bring to the schooling process. In turn, the qualities of the schooling process influence who students become as adults and what they contribute to their communities (Packer & Goicoechea, 2000). Schools participate in or disrupt cycles of poverty by the quality of education provided for students. School quality is influenced by educators' understanding of local communities and students' lived experiences and educators' ability to build on and extend what students know and value. Such knowledge and skills are prerequisites to educators providing meaningful experiences that facilitate students' growth and development and enable students to reach their highest potential.

Preparing teachers with the professional knowledge and skills for facilitating learning for students from different cultural and experiential backgrounds and with different needs requires a purposefully designed partnership between teacher preparation programs and the local community. The most productive partnerships provide reciprocal benefit for the teacher preparation program and community. The discussion in this section presents common reasons and approaches to developing partnerships between teacher preparation programs and the community. This discussion includes the description of a specific community-based teacher preparation initiative enacted in the Children's Defense Fund's Freedom Schools, including the promising results of this initiative for clinical experiences in teacher preparation.

Purpose of Community Partnerships in Preservice Teacher Preparation

Scholars focusing on engaging candidates in meaningful clinical experiences in communities have been particularly concerned with addressing deficit perspectives that candidates often hold about traditionally underserved populations and with solving the problem of high teacher attrition rates in schools educating large numbers of traditionally underserved students. These deficit perspectives and high rates of teacher turnover have a potentially negative effect on the quality of education provided for students (Garcia & Weiss, 2019).

Teacher attrition poses both major financial and significant educational problems for schools and school districts in the United States. Garcia and Weiss (2019) estimate that teacher attrition costs taxpayers almost \$8 billion per year in the form of expenses for recruiting and training new teachers. Research also indicates that excessive teacher turnover negatively impacts student academic achievement (Sorensen & Ladd, 2020).

Many arguments in support of increased preservice teacher preparation involving community experiences are predicated on evidence that teachers in the United States are overwhelmingly White, female, and from middle-class backgrounds; hold inaccurate beliefs about the families, communities, and identities of their students; and their students are increasingly from diverse racial, cultural, linguistic, and socioeconomic backgrounds. These inaccurate beliefs often lead to stereotypical assumptions about and deficit perspectives of traditionally underserved students (Gay, 2014; Gonzalez & Moll, 2002; Sleeter, 2001). Because teacher assumptions and perspectives have been

correlated with student opportunities for learning (Love & Kruger, 2005), changing teacher candidate beliefs and understanding about traditionally underserved students, for the purpose of improving the learning outcomes of those students in P-12 schools, has become an increasingly important goal for preservice teacher preparation.

Foregrounding community in clinical experiences for preservice teacher preparation has been posited as a way to at least partially address both candidate disposition toward underserved communities (Boyle-Baise & Sleeter, 2000; Zeichner et al., 2016) and to increase teacher recruitment and retention in schools serving such communities (Noel, 2010). In addition, to meet the needs of all of their students, including students from backgrounds different than their own, teachers must be able to contextualize the curriculum, learning experiences, and other teaching practices for individuals and groups of students. Deep knowledge of community is an important prerequisite for this type of contextualization (Hollins, 2019). Community-based clinical experiences are a possible vehicle for the development of that knowledge.

Approaches to Integration of Community Partnerships into Teacher Preparation

Community partnerships are primarily integrated into preservice teacher preparation at two levels—the course level and the program level. Course-level integration involves candidates undertaking clinical experiences with school and/or community partners to observe the application of or apply the knowledge themselves from a single or small number of courses. Often, these clinical experiences take the form of special purpose practicums. Program-level integration of university-school-community partnerships requires that the partnership become a central feature of program coherence, reifying program conceptual elements, such as philosophical stance and theoretical perspective, and shaping structural elements, such as clinical experiences and alignment of courses. Course-level integration is more common and less logistically challenging than program-level integration.

Hallman and Rodriguez (2015) described an example of course-level integration of community partnerships in teacher preparation. This partnership was developed to provide candidates in a middle and secondary English language arts (ELA) teaching methods course with clinical experiences related to learning and teaching literacy within disciplinary contexts. The methods course was integrated with a clinical experience at Family Partnership, a community-based organization providing support for families experiencing homelessness. Candidates provided a minimum of 20 hours of mentoring and tutoring over the course of the semester to students in Family Partnership's after-school initiative. This after-school initiative and the involvement of teacher candidates in the initiative was developed at the specific request of the directors of Family Partnership in collaboration with instructors in the university teacher preparation program. Assignments in the ELA methods course required candidates to analyze and interpret data from their experiences in the community setting to facilitate planning and enacting of learning experiences for the students in the after-school program. Candidates were prompted to consider how to emphasize disciplinary literacy practices within their planning, and to help the students with whom they worked see the connections between school assignments and underlying principles of the disciplines.

Noel (2006, 2010) described an example of a program-level integration of a university-school-community partnership into teacher education. The California State University, Sacramento, Urban Teacher Education Center (UTEC) physically moved teacher preparation off of the university campus and into an urban elementary school to better prepare teacher candidates for “urban education, including the social, political, and economic conditions impacting the lives and education of urban children and their families” (Noel, 2006, p. 221). The UTEC provided a variety of benefits to the school and community. It operated a family resource center within the school that provided community members with access to technology and books; provided staffing for the school’s library, which had been without a librarian prior to the beginning of the partnership; held family literacy nights; and facilitated an after-school arts program. Structurally, the UTEC had a dedicated physical space in the elementary school that included a school mailbox giving UTEC faculty and staff access to all communications provided to elementary school staff (Noel, 2006). Every teacher in the elementary school hosted at least two UTEC teacher candidates in their classrooms for the UTEC early field experience that occurred in conjunction with coursework in candidates’ first semester in the program. The early field experience culminated with candidates completing a community inquiry project where they spent time with community members to learn about students’ lives outside of school. This community study provided the foundation for candidate learning in the remaining two semesters of the teacher preparation program.

Noel (2010) evaluated the impact of the UTEC using data from surveys, interviews, and focus groups conducted over the first 5 years of the community-engaged program. Surveys of school personnel and community leaders indicated a strong belief that the program was benefiting the students in the school. Surveys of UTEC candidates compared to candidates enrolled in a traditional teacher preparation program at the same university indicated higher motivation to teach in urban schools and greater desire to work with students from low socioeconomic backgrounds for the UTEC candidates. Pre- and post-program surveys of UTEC candidates also indicated significant increases in candidates’ desire to involve families and communities in their future teaching practice. Noel (2011) credited these successes to a sequential three-step process for authentic community engagement:

- (1) being physically located at the school or community site in order to build trust and become integrated into the life of the school or community, (2) conducting community studies in order to learn about and understand the lives of community members, and (3) becoming involved in community engagement activities. (p. 31)

Stakeholders in the UTEC credit this process with both the success and longevity of the program. As originally designed, the UTEC operated continuously for 5 years, and the university-school-community partnership developed for the project continued to engage all three stakeholders in teacher education for several years (Noel, 2013). As discussed later in this paper, such sustained engagement is uncommon in the practice of community-based preservice teacher preparation. In fact, when the UTEC was first proposed in 2004, P-12 administrators and community leaders expressed doubts that the project would last more than 1 year, given their past experiences with university attempts at community engagement (Noel, 2010).

Established Benefits of Partnerships

University-school-community partnerships that generate clinical experiences for preservice teachers have demonstrated the potential to increase candidates' knowledge of and positively impact candidates' beliefs about traditionally underserved students and communities (Guillen & Zeichner, 2018; Hallman, 2012; Seidl & Friend, 2002a, 2002b; Zeichner et al., 2015, 2016).

For example, the Community Teaching Strand (CTS) at the University of Washington (Boyle-Baise & Sleeter, 2000; Guillen & Zeichner, 2018; Zeichner et al., 2015, 2016) was designed to facilitate candidate understanding of communities and their importance to education, and to provide candidates with opportunities to develop the skills to engage with those communities. Experiences included panel presentations by community mentors about issues of importance to the community that also connected to readings in social foundations courses, small group discussions focused on specific geographic areas in the teacher preparation program's service area led by community mentors from the corresponding areas, and field seminar courses that met weekly and were jointly orchestrated by university instructors and community mentors. Field seminars were planned to connect to topics and themes from other teacher preparation program courses that candidates were taking concurrently with the seminar. Interviews with candidates and analysis of candidates' work products indicated changes in candidates' perspectives about the role and value of families and increased respect for the resources and knowledge of families and communities.

Hallman and Burdick (2015) studied candidate experiences in community-based clinical experiences integrated at the course-level with two advanced ELA teacher preparation courses at two different universities. These courses incorporated clinical experiences at three community sites: a day center for families experiencing homelessness, an after-school site at an adolescent group home, and a tutoring program at an alternative school. Though the specifics of candidate work at each site differed due to the specific needs of clients, two core features of the community fieldwork in which candidates engaged were similar across all three sites.

First, all engagement between candidates and community organizations was premised on a principle of *mutual benefit*. Mutual benefit meant that the work undertaken in clinical experiences helped meet the self-identified needs of all stakeholders in the partnership, and all involved "are receiving as much as they are giving" (Hallman & Burdick, 2015, p. 142). In this instance, teacher candidates required experience in settings that would help them develop the knowledge and skills necessary to contextualize curriculum and teaching practices for a variety of learners. The community organizations had pre-identified their own needs related to dedicated volunteer labor for staffing internal educational programs. These clinical experiences allowed the needs of both parties to be met in a mutually beneficial manner.

Second, candidate experiences were mediated through a process of *structured reflection* (Hallman & Burdick, 2015). Candidates completed weekly journal and discussion assignments designed by course instructors to encourage them to think deeply about their experiences in the clinical setting and interrogate those experiences through various lenses. Additionally, a culminating assignment required candidates to track changes in their own thinking and attitudes about learners and learning environments from

the beginning of the experience to the end. This structured reflection was intended to improve candidates' abilities to learn from professional experience, as well as facilitate what they were learning from those experiences.

Hallman and Burdick found that clinical experiences in community settings, designed with mutual benefit and structured reflection, afforded candidates the opportunity to rethink their preexisting views of learners, the role of teachers, and the relationship between learning and community. They argued that community fieldwork allowed for this conceptual change because community settings provided a space to consider teaching unconstrained by existing curricular structures and deep-seated constructions of the work of teaching formed by years of experience as students in P-12 classrooms. Earlier work by Boyle-Baise and Sleeter (2000) supports this interpretation, indicating the power of community fieldwork to "destabilize preservice teachers' prior assumptions" (p. 33), particularly assumptions about students from racial and cultural backgrounds that differ from those of the candidates.

While the capacity of community-based clinical experience to increase candidate knowledge of and positively impact candidate beliefs about traditionally underserved students and communities is well-documented, the scholarly literature is less clear about whether benefits such as changing teacher candidates' beliefs and understanding about underserved students is sufficient to improve candidate ability to contextualize and apply academic knowledge and, ultimately, to positively impact underserved students' academic, social, and psychological development. The programs discussed in this paper that have demonstrated success in developing candidate knowledge and changing candidate beliefs tend to share one or more of the following features: (1) community engagement in establishing clearly articulated goals for the experience, (2) regular evaluation of the efficacy of the experience in meeting those goals, (3) formal structures and assignments to mediate candidate engagement with the experience, and (4) mutual benefits for all stakeholders involved in the experience.

The next section details an approach to community-based teacher preparation that integrates many of these common features and holds promise for improving achievement for traditionally underserved students.

Promising Practice: Freedom Schools

The program developed by the Children's Defense Fund (CDF) to prepare individuals to teach in the summer Freedom Schools illustrates many aspects of a successful community-based teacher education initiative. The CDF's Freedom Schools, operated in its current form since 1995, are inspired by the Mississippi Freedom Summer project started in 1964 by civil rights organizations working to improve social, economic, and political conditions for African Americans (Coffey, 2010). The CDF's Freedom Schools are created as partnerships among the CDF, community organizations, and educational institutions. Freedom Schools hire current and recently graduated college students as *servant-leader* interns to teach in 5- to 8-week summer enrichment programs for traditionally underserved students, especially children of color (Jackson, 2009).

Freedom Schools and their associated teacher preparation initiatives were initially envisioned and developed by community members and grew directly from community history, culture, and goals. Universities and other educational stakeholders were

brought into Freedom Schools partnerships based on their willingness and ability to contribute to community goals. Though both community stakeholders and other educational partners benefit from involvement in Freedom Schools initiatives, community goals are given primacy in Freedom Schools that they are often not given in other community-based teacher preparation endeavors.

The teacher preparation that Freedom Schools interns receive is grounded in a philosophical stance on teaching that recognizes teaching as a form of social activism intended to ensure quality educational experiences and improve academic achievement for children who have been historically denied those experiences in U.S. schools. All aspects of the preparation program are directly targeted to achieve these outcomes. The preparation is guided by a sociocultural perspective on learning that emphasizes the role of social interaction, culture, and community context in shaping learner growth and development (Jackson, 2008).

The CDF staff, themselves prior Freedom Schools interns and members of the communities in which Freedom Schools operate, prepare interns in a structured program emphasizing Freedom Schools curricula and pedagogy, grounded in foundational knowledge about the history and current conditions of schooling for traditionally underserved children. Each Freedom Schools site also employs a site coordinator, who is integrally tied to the community, and who functions as the primary administrator and instructional leader for that site. The site coordinator also facilitates ongoing teacher education and professional development for interns.

Preparation of interns begins with a 10-day national training institute conducted by the CDF staff at the Haley Farm in Tennessee, former home of Alex Haley, author of *Roots* (1976). Beginning intern teacher preparation at a historically and culturally significant site sets the foundation for the CDF approach to teaching and teacher education as grounded in culture, community, and history. The national training institute for Freedom Schools interns starts by educating new interns about the history of unequal educational opportunity in the United States and tracing the legacy of segregated schooling and inequitable resource investment to the present day. In a series of structured experiences, interns are then introduced to the Freedom Schools curriculum and guided through pedagogies used to implement that curriculum. Teacher preparation pedagogies of question-posing, discussion, modeling, and reflection are employed based on their compatibility with the philosophical stance and theoretical perspective of the program. Teacher education and development are ongoing throughout the Freedom Schools session in the form of “curriculum training sessions, child development workshops, daily site debriefing meetings, and site coordinator observations” (Jackson, 2006, p. 9). These ongoing components of Freedom Schools teacher preparation are driven directly by the needs of the students attending that particular summer session, and are rooted in the history, culture, and current circumstances of the community hosting the school. Jackson (2006) argued that the Freedom Schools teacher training differs from many other teacher preparation initiatives centered on social justice frameworks, because Freedom Schools preparation not only focuses on developing teacher dispositions and conceptualizations of social justice, but it also provides specific tools and opportunities for interns to apply social justice principles to teaching practice.

The efficacy of the Freedom Schools approach is supported by the fact that positive correlations have been established between Freedom Schools attendance and increases

in P-12 student reading ability as measured on standardized academic achievement tests (Philliber Research Associates, 2008). The preparation approach employed by Freedom Schools clearly incorporates all four of the features of quality community-based teacher preparation experiences described above.

Discussion

Noel (2010) cautioned that teacher education programs moving into community settings can cause “social and psychological harm” (p. 14) to those communities if the teacher preparation program attempts to impose its own cultural norms and values on the community rather than allowing the community’s own values to shape the teacher preparation program. Noel also argued that the development and maintenance of equal status relationships between the teacher preparation provider and community partners is essential for avoiding those harms. Doing so requires, among other things, sustained investment of both material and human resources.

Unfortunately, this sustained investment does not always happen, particularly at the program level. The logistical complexity of such partnerships means that changes in program priorities due to resource scarcity and/or new leadership can lead to the program’s dissolution, as happened to the CTS described by Guillen and Zeichner (2018). Accounts of the various community-based experiences described in this paper suggest that the longevity and efficacy of the experiences is linked to the degree to which the clinical experience is conceptually and structurally embedded in the community context. Being conceptually embedded in the community context means that the clinical experience centers the goals and values of the community it is intended to serve, and that as those goals and values evolve, the clinical experience has the flexibility and resources to evolve with it while still meeting the needs of the teacher candidates undertaking the experience. Being structurally embedded in the community means that community stakeholders are integrally involved in the operations of the experience. This can include physical locations within the community, as well as integration of community members in mentorship and leadership roles. The field would benefit from investigation and description of sustainable approaches to community partnerships that have demonstrated longevity.

In addition, the research base on community partnerships for clinical experiences in teacher preparation strongly indicates that such experiences have the potential to positively influence candidate attitudes toward and knowledge about families and communities, and improve teacher recruitment and retention in traditionally hard to staff schools. However, the literature lacks consensus on the degree to which these changes in attitudes and staffing translate to learning gains for students in P-12 schools.

TEACHER RESIDENCY STATEWIDE INITIATIVES

The teacher residency, modeled after the medical residency, was developed as a university-school partnership with reciprocal benefit, shared purpose, and shared responsibility for preservice teacher preparation. The initial goal was to better prepare teachers for urban schools, reduce teacher turnover, and increase the number of teachers available and interested in teaching in urban schools. The teacher residency requires

candidates to spend 1 year or longer teaching in an urban school under the supervision of an experienced teacher while completing university coursework to earn licensure. This approach to preservice teacher preparation has been an occasional practice for more than two decades.

In 2001, the Carnegie Corporation of New York sponsored the Teachers for a New Era Project (TNE) as a nationwide initiative based on the teacher residency approach. The TNE addressed three persistent problems of practice in teacher preparation that included providing evidence for the effect of university-based teacher preparation on candidates' and teachers' classroom performance; raising the status of teacher preparation on university campuses and improving collaboration among teacher education faculty and arts and sciences faculty; and engaging K-12 school practitioners as equal partners in supporting candidates and novice teachers in achieving full teaching competency. The implementation of TNE employed a residency model for preservice teacher preparation programs based on three design principles that included (1) "a teacher education program should be guided by a respect for evidence," (2) "faculty in the disciplines of the arts and sciences should be fully engaged in the education of prospective teachers, especially in the areas of subject matter understanding and general and liberal education," and (3) "education should be understood as an academically taught clinical practice profession" (TNE, 2001, p. 4). The project included a longitudinal study involving 11 university-based, preservice teacher preparation programs. The design principles guided the work in the 11 participating institutions.

The TNE study placed emphasis on the use of outcome evidence for program improvement, especially the effects that program graduates have on students' learning. The research findings indicate that among the universities participating in the study, two sites managed to generate value-added data. The data from these two sites were insufficient for productive program improvement or for differentiating among teacher preparation programs. However, faculty research projects were conducted at each participating university. Not all faculty research met rigorous peer-review standards, but some actionable evidence was generated. The implementation and evaluation of the changes that resulted extended beyond the time allocated for the TNE project. For example, evidence suggesting the need for substantive changes in the knowledge base or clinical experiences might require institutional approval and a cohort of candidates completing the revised program before the impact of changes can be determined (McDiarmid & Caprino, 2018).

The teacher residency approach employed in the TNE project has been recently incorporated into statewide initiatives in several states. Consistent with earlier approaches, the new teacher residencies address teacher shortages in specific subject areas and in schools for urban, rural, and other underserved students. These statewide initiatives are important because in some states, the teacher residency approach is used to substantially transform existing preservice teacher preparation programs through new mandates and regulations and in other states to build on and extend the existing knowledge base and clinical experiences.

This paper examines statewide initiatives in California, Louisiana, and Texas that focus on teacher residency as an approach to preparing excellent teachers for shortages in specific areas, including hard to staff schools. The descriptions of these approaches are based on information gathered from state legislative documents; calls for appli-

cations for funding; websites for state departments of education, universities, local education agencies, teacher residency programs, and NCTR; and conversations with program directors. These statewide initiatives are new and have generated few published research reports or scholarly articles. This discussion includes a description of at least one operating teacher residency for each of the three statewide initiatives.

The teacher residency programs in the statewide initiatives highlighted in this discussion are required to do the following: (1) meet existing state requirements and standards for teacher preparation programs and teacher licensure, (2) partner with P-12 schools for a yearlong teacher residency, (3) engage an approach employing specifically trained mentors for the clinical experience, and (4) engage candidates in the *concurrent* learning and application of knowledge from coursework to practice. Residents are required to enroll in a partner university-based accredited teacher preparation program leading to licensure; commit to a full-time yearlong apprenticeship in teaching; qualify for licensure in the designated area at the end of the program; and commit to teaching in the designated area of teacher shortage for a specific length of time. Additionally, there are unique aspects to each state initiative.

California Statewide Teacher Residency Initiative

The California Teacher Corps Act, AB 1217 (2017), was passed by the state legislature in 2017 and the 2018-2019 state budget allocated \$60 million for teacher residency programs. This act established a teacher residency program in areas of teacher shortages that include special education, bilingual education, math, and science. Resident teachers are provided with a stipend for participating in the program.

The California teacher residency initiative is a grant-based approach focused on local school needs. Local education agencies (LEAs) initiating a grant application are required to provide evidence of the need for classroom teachers in the designated areas. Candidates participating in the California Teacher Residency Grant program are required to enroll in a teacher licensure program approved by the California Commission on Teacher Credentialing, complete at least 9 months of teaching under the supervision of a trained mentor teacher, and make a 4-year commitment to teach in a school under the authority of the sponsoring LEA.

In the California Commission on Teacher Credentialing's call for proposals dated October 2018, a teacher residency program is defined in the following statement:

A "teacher residency program" is a grant applicant-based program that partners with one or more teacher preparation programs accredited by the commission and in which a prospective teacher teaches at least one-half time alongside a teacher of record, who is designated as the experienced teacher for at least one full school year while engaging in initial preparation coursework. (p. 7)

Additionally, the call for proposals identifies eligible applicants as:

Local Education Agencies (LEAs) currently working in partnership with institutions of higher education (IHEs) that are operating a teacher residency pathway within their commission-approved teacher preparation program and LEAs that are beginning a new

partnership with a commission-accredited IHE that has an approved teacher preparation program, to offer a teacher residency program. Applicants should note that there is a 100 percent match requirement for each grant dollar received. Matching may be actual funds and/or in-kind match. (p. 1)

The designation of the LEA as the sponsor for the teacher residency program is a significant departure from traditional grants to universities for teacher preparation that require a partnership with schools.

The effectiveness of the preparation that residents receive is influenced by the unique factors of the residency and the mentor teacher, and the quality of the commission-approved teacher preparation program in which they enroll. Evidence is not yet available on the performance and impact of residents, or the effectiveness of the teacher residency programs participating in this initiative due to the recency of the initiative and changes in standards and other program requirements by the California Commission on Teacher Credentialing.

Understanding the potential success of California's statewide teacher residency initiative requires knowledge of the state requirements for teacher licensure. California has a complex system of standards and requirements for teacher preparation programs and preliminary teacher licensure maintained across all licensure programs, including the teacher residency. For example, the California standards for the teaching profession incorporated into the teacher expectations represent core competencies for teaching practice and are an essential component for all teaching licensure programs. The teacher preparation subject-matter programs for the multiple subject and single subject curriculum are aligned with the state-adopted content standards for K-8 and 9-12 students. Candidates in the California teacher residency program are required to meet all standards for licensure, including examinations for subject-matter competency and teaching performance assessments.

Standard 3 of the California common standards for preservice teacher preparation addresses the course of study, fieldwork, and clinical practice. This standard requires that teacher preparation providers collaborate with P-12 school partners in determining the criteria and selection of clinical personnel, site-based supervisors, and school sites for clinical experiences. Site-based supervisors are required to be licensed, trained in supervision, and provided recognition for their work. Clinical experiences are regularly evaluated. Candidates are placed in schools where the curriculum is aligned to the California standards and frameworks, and the students represent the diversity in the state population. Candidates are provided clinical experiences that require application of knowledge about the influence of student diversity on the school climate and the application of research-based strategies that improve teaching and learning (California Commission on Teacher Credentialing, 2015).

The state standards and requirements for teacher preparation programs and teacher licensure frame the statewide initiative for teacher residency programs. The purpose for teacher residency programs influences the knowledge base, clinical experiences, and opportunities for employment after completing the licensure program. The discussion of the San Francisco Teacher Residency illustrates the implementation of the new California statewide initiative in an expansion grant for an existing teacher residency program (see Box 3).

BOX 3

San Francisco Teacher Residency

The San Francisco Teacher Residency (SFTR) was established in 2010 as a nonprofit organization that serves the San Francisco Unified School District (SFUSD) in partnership with the University of San Francisco, Stanford University, the United Educators of San Francisco, and affiliate San Francisco State University (SFSU). In 2018, the statewide initiative for teacher residency awarded program expansion grants to SFUSD in collaboration with SFSU that focused on the preparation of teachers in science, technology, engineering, and mathematics (STEM) education, and with Stanford University and the University of San Francisco for STEM education, STEM bilingual, multiple subjects bilingual, and single subject bilingual. The state-sponsored expansion grant was an enhancement to the existing SFTR.

The purpose of the SFTR is to recruit and prepare preservice teachers with the knowledge and skills for improving the academic performance and social-emotional development of underserved students in SFUSD, and to improve the quality of life for students and residents in the local community. The program has a strong focus on teaching for social justice that includes restorative practices, trauma-informed practices, culturally relevant pedagogy, anti-racist teaching, partnerships with families, and the SFUSD common core curriculum. Participants engage in a yearlong residency apprenticeship with an experienced teacher as a mentor while earning a master's degree and teacher licensure through the University of San Francisco, SFSU, or Stanford University. The SFTR regularly monitors and assesses residents' progress toward competent teaching using the following four indicators (San Francisco Teaching Residency, 2016):

1. Make connections to prior and future learning experiences with students during a lesson.
2. Use positive reinforcement strategies to respond to students' behavior.
3. Develop and/or use multiple measures to track student progress on skills that lead to academic success.
4. I/my resident improves student learning and achievement in the classroom (now, not just in future classrooms).^a

When participating in the program, residents receive reduced tuition and a stipend. Participants are required to make a 3-year commitment to teaching in SFUSD, guaranteed employment after completing the program and earning a teaching license, and provided a housing stipend based on need. The 3-year commitment was less than that required by the initiative, but was approved by the California Commission on Teacher Credentialing.

In 2016, SFUSD hired more than 850 new teachers (Leal & Mio, 2016). During the same school year, the SFTR reported that from 2010 to 2016, a total of 175 teachers were trained through the residency program with a 5-year retention rate of 80 percent in SFUSD. Sixty-six percent of residents prepared in the program were people of color. Approximately 49 percent of teachers in SFUSD are teachers of color. The SFTR graduates received high ratings from principals. However, data were not provided for the impact of the residency program graduates on P-12 students' academic performance. The SFUSD teacher residency is a promising practice, although the number of teachers prepared is small compared to the number hired in a single year in SFUSD.

^a See <http://www.sfteacherresidency.org/page-section/impact>.

A signature aspect of the California statewide teacher residency initiative is the intent to address teacher shortages in specific areas based on local needs by awarding grants directly to LEAs rather than to universities. School sites and site-based supervisors are jointly selected by university-school partners and are required to meet specific standards for practice and licensure that support residents' learning to teach. Residents are placed in school settings with opportunities for applying knowledge about the influence of student diversity on the school context and research-based teaching practices that improve learning for traditionally underserved students. The 4-year commitment to the sponsoring education agency required for the residency aims to decrease teacher turnover in hard to staff schools by placing teachers in the school or district where the residency was completed.

Louisiana Statewide Teacher Residency Initiative

The Louisiana statewide initiative for the teacher residency extends beyond California's special purpose teacher residency initiative to begin the transition to a yearlong residency for all teacher licensure programs. In 2014, the Louisiana State Board of Elementary and Secondary Education (BESE) initiated the transition from traditional teacher preparation to a competency-based curriculum supported by a yearlong residency for all preservice teachers. The new competency-based curriculum addressed areas such as learning environments, curriculum, assessment, and instructional planning. This effort was supported with federal funds for Teacher Incentive grants and the Individuals with Disabilities Education Act (IDEA). A total of \$7.3 million in transition funds was provided for university administrative costs, resident stipends, and stipends for mentor teachers. This grant funding gave priority to teacher preparation in rural school districts, post-baccalaureate co-teaching residencies, and special education teacher preparation. Applications for grants were to include concrete plans for measurable outcomes and for sustainable financial support beyond the end of the grant funding. Program implementation plans needed to include the following (Louisiana Department of Education, 2017; Louisiana State Board of Elementary and Secondary Education, 2016, 2017):

- Co-construct competency-based preparation programs that include, at minimum, a yearlong residency.
- Select, develop, and evaluate highly effective mentor teachers.
- Select and develop high-quality residency host school sites.
- Provide direct coaching and support to teacher residents and mentor teachers.
- Establish partnership governance teams who routinely evaluate candidate, mentor, and program effectiveness to make continuous improvement.

In October 2016, BESE adopted regulations that required expansion of the yearlong teacher residency to all preservice teacher preparation programs statewide. Under the new regulations, a resident teacher certificate is issued to candidates in the yearlong residency. After completing an approved teacher preparation program, candidates are recommended for licensure by the program provider in consultation with the school leader and mentor teacher; and a teacher preparation rating system is used in program

evaluation. The first cohort of candidates was required to complete the competency-based curriculum and the yearlong residency during the 2018-2019 academic year. The Norman C. Francis Teacher Residency at Xavier University of Louisiana is an example of the application of this initiative (see Box 4).

BOX 4

Norman C. Francis Teacher Residency at Xavier University of Louisiana

The Norman C. Francis Teacher Residency at Xavier University of Louisiana began in 2015 as the first teacher residency program in the state of Louisiana. The program was initiated with assistance from the National Center for Teacher Residencies (NCTR) and fully embraces the teacher residency model advocated by NCTR. The university partners with multiple charter and community schools across two local parishes for implementation of the teacher residency initiative.

In this program, about 25 residents per year engage in a yearlong residency, under the supervision of a classroom teacher specifically trained for mentoring, while taking courses to earn a master's degree and teacher licensure. Additionally, the university provides two site mentors to support the mentor teacher and residents. The site mentors are master teachers who are not faculty members at the university. The residents in this graduate level program are usually career changers from different professions and take on teaching responsibilities at different rates; however, all are required to achieve the end goal of teaching competence. For example, residents from education-related fields such as child and family therapy and those with extensive experience in child recreation build on what they know and have experienced with children and can assume more complex responsibilities sooner than their peers who have not worked extensively with children.

The program is focused on the preparation of teachers to improve learning outcomes for urban students. The program emphasizes cultural competence. Residents in this program engage in a *gradual release of responsibility* co-teaching approach in the process of learning to teach. The gradual release of responsibility provides opportunities for observation and dialogue with the mentor teacher as residents are learning to apply teaching practices from their coursework. How mentor teachers support candidates in the application of academic knowledge to practice is not explained and examples are not provided.

A signature aspect of the Louisiana statewide initiative is the intent to substantially transform preservice teacher preparation through requiring a yearlong residency, competency-based curriculum, and close collaboration with public schools for mentoring and recommending candidates for licensure and evaluating the preservice teacher preparation program. The primary goal is to improve learning outcomes for students. Data are not yet available for measuring the impact of the new teacher residency on P-12 student academic performance.

Texas Statewide Teacher Residency Initiative

The Texas Teacher Residency Program Act, passed in 2013 (Texas Teacher Residency Act, HB 1752, 2013), established a teacher residency program intended to “impact

student achievement in high-need schools.” The commissioner of higher education was authorized to use a competitive selection process to establish a teacher residency program at a public institution of higher education. The public institution of higher education was required to form a partnership with a school district or open-enrollment charter school to provide employment for teacher residents. The teacher residency program was designed to award participants initial teacher licensure or a master’s degree for those holding initial licensure. Participants in the Texas Teacher Residency Program are required to meet the same preparation standards and requirements for licensure as those in traditional teacher preparation programs. Participants who are licensed are expected to participate in a rigorous master’s level program that integrates pedagogy and classroom practices.

The Texas Teacher Residency Program Act requires that public institutions of higher education “identify faculty who can prepare teachers to impact student achievement in high-need schools;” reward faculty appropriately for participating in the teacher residency program, including in the university tenure process; and participate in elevating the status and professionalization of teaching at the primary and secondary levels.

Additionally, the Texas Higher Education Coordinating Board’s (2016-2017) request for applications for the Texas Teacher Residency Program required explanations of how the program sponsor will provide:

1. Teacher residencies with team mentorship through selected subject area mentors.
2. Job placement assistance for teaching residents.
3. Collaboration with a regional Texas Education Service Center for professional development or learning experiences.
4. Support participants for 1 year after program completion through mentoring, professional development, and networking opportunities.
5. Monetary or in-kind contributions to demonstrate that the program may be sustained in the absence of grant funds or state appropriations.

Applicants for the teacher residency program are eligible if the initial teacher licensure was received within the past 2 years and less than 18 months of full-time equivalency teaching has been accrued. Applicants who have not earned initial teacher licensure must have earned a bachelor’s degree and be a mid-career professional from outside the field of education. Other eligible applicants are those who have served as substitute teachers or teaching assistants. Participants in the teacher residency program are selected based on established criteria that includes comprehensive subject-matter knowledge, strong written and verbal communication skills, and specific attributes linked to effective teaching. Residents commit to serving for 4 years at difficult to staff schools.

The new statewide initiative requirements apply to new and existing teacher residency programs. The Dallas Teacher Residency (DTR) was among the first funded under this new statewide initiative (see Box 5).

BOX 5

Dallas Teacher Residency Program

The Dallas Teacher Residency (DTR) program was founded in 2013 as a nonprofit organization in partnership with the Texas A&M University-Commerce and has expanded to include Texas Wesleyan University in Fort Worth. This program serving the Dallas-Fort Worth metropolitan area was the first program funded by the Texas Higher Education Coordinating Board for the 2014-2015 biennium. The program is focused on the preparation of teachers to improve learning outcomes for urban students. While taking courses to earn a master's degree and teacher licensure, about 20 residents engage in a 14-month residency under the supervision of a classroom teacher who is specifically trained for mentoring. The teacher preparation knowledge base includes courses specific to teaching in the urban context including diversity, equity, and inclusion, and culturally relevant pedagogy. Residents in this program engage in a gradual release of responsibility approach in the process of learning to teach as indicated in the teacher residency approach advocated by the National Center for Teacher Residencies. This approach provides opportunities for observation and dialogue with the mentor teacher as residents are learning to apply teaching practices from their coursework. This is significantly different from practices in the traditional university-based undergraduate teacher preparation program at the Texas A&M University-Commerce that enrolls more than 900 candidates and where all coursework is completed before engaging in student teaching.

The program has graduated more than 200 teachers who serve more than 10,500 students. The Texas legislation authorizing the teacher residency approach requires that programs demonstrate increased learning outcomes for urban and underserved students on the State of Texas Assessments of Academic Readiness test. The DTR program made the following claim:

During the 2017-2018 Academic School Year, each cohort of past DTR program graduates outperformed their teacher counterparts in Dallas Independent School District [ISD] (for example—During their first year of teaching, DTR program graduates outperformed other first year teachers in Dallas ISD by nearly 18 percent).^a

This statement is presented to stakeholders as evidence of compliance with the Texas legislative requirement for improving the performance of underserved students in hard to staff schools, it does not indicate the aspects of teaching performance assessed or how the assessment was conducted. Furthermore, the assessment of teaching performance does not necessarily indicate improvement in the academic performance of P-12 students.

^a See <https://www.dallasteacherresidency.org/program-overview/impact>.

Discussion

The concept of the teacher residency program as incorporated in the statewide initiatives for California, Louisiana, and Texas provides a consistent framework for the design of preservice teacher preparation that includes a philosophical stance, a theoretical perspective on learning to teach, epistemic practices for learning to teach, and a framework for the knowledge base (Hollins & Warner, 2021). The philosophical stance for each initiative addresses specific populations of students, specific subject areas, expected impact on P-12 learning, and attention to issues of diversity. Epistemic practices include a gradual release of responsibility and a co-teaching approach. The knowledge base is clearly framed by competencies for teaching and subject-matter

knowledge related to the school curriculum. The preparation of mentor teachers is not elaborated. Thus, it is unclear how mentor teachers gain insights about the academic knowledge included in program coursework. The absence of such specific training promotes reliance on the traditional cognitive apprenticeship.

Each of the three statewide initiatives for teacher residency programs in this discussion set standards for evaluation that include (1) meeting all state standards for teacher preparation programs and teacher licensure; (2) preparing teachers for hard to staff schools; and (3) improving academic performance for underserved P-12 students. The standards and regulations for these statewide initiatives provide opportunities for addressing important issues in preservice teacher preparation, rethinking the purpose and process of evaluating the clinical experience, and identifying reliable quality indicators for the clinical experience that extend beyond new and existing state and national standards. An overarching question to be answered regarding the evaluation of the clinical experience is: What is the most *productive* approach to evaluating the clinical experience in preservice teacher preparation to ensure the highest quality of development for P-12 students academically, socially, and psychologically? This question raises issues related to clinical practice, outcomes, impact, and the sustainability of knowledge for teaching applied during the clinical experience. Such questions are addressed in the discussion on the evaluation of the clinical experience in the next section of this paper.

SYSTEMATIC EVALUATION OF THE CLINICAL COMPONENT OF TEACHER PREPARATION

The previous sections of this paper discussed various approaches to clinical experiences for preservice teacher preparation. The purpose for each approach is to support candidates in learning to contextualize and apply academic knowledge to practice in facilitating P-12 students' growth and development academically, socially, and psychologically. Usually, several different types of clinical experiences are included within and evaluated as part of a single preservice teacher preparation program. The evaluation of these various approaches has not consistently or systematically demonstrated their efficacy in terms of outcomes, impact, and the sustainability of the process for contextualizing and applying academic knowledge to practice and the ability to learn from professional experience. Consistently enabling candidates to improve learning and developmental outcomes for P-12 students requires a more strategic and systematic approach to the evaluation of clinical experiences that identifies attributes, quality indicators, and sources of evidence. The primary purpose for this type of evaluation is to provide information for increasing the trustworthiness of specific approaches to clinical experiences that support teaching competence for facilitating students' growth and development.

The knowledge inputs, developmental progression, outcomes, and impact included in this discussion are based on empirical research. A review of the research and scholarly literature is not included; however, specific research studies are used as examples to illustrate practices, value, and the measures used. Three categories of questions derived from the research studies were used to guide the identification of quality indicators included in the evaluation of clinical experiences. The primary purpose for this approach is to improve the clinical component of preservice teacher preparation.

However, the three categories of questions used in identifying quality indicators for evaluating the clinical component can be used in collecting data for program improvement, state and national program accreditation, and research for advancing practice in the field. The following questions form the basis for data collection and identifying quality indicators and sources of evidence that can be used for these different purposes.

Category #1: Knowledge Input Questions: To what extent can academic knowledge from coursework be observed, analyzed, or applied to practice in classrooms, schools, or communities? To what extent can academic knowledge for teaching be contextualized for students with different needs and with diverse cultural and experiential backgrounds?

Category #2: Developmental Progression Questions: Are the developmental progression and the guidance provided adequate for ensuring that candidates meet the goals for each level in the clinical experience sequence? When candidates complete the developmental sequence, is their knowledge of practice adequate for supporting competent teaching as represented in state and national standards and expectations for student learning outcomes? To what extent do candidates have opportunities for applying knowledge from coursework to practice during their clinical experience? To what extent are candidates able to apply the knowledge from coursework effectively and to generate the expected developmental outcomes for P-12 students? To what extent do sites for clinical experiences support teacher preparation programs and clinical practices?

Category #3: Outcomes and Impact Questions: Do program graduates demonstrate the ability to adapt the knowledge gained from coursework and clinical experiences to foster the expected outcomes for students with different needs, students from diverse cultural and experiential backgrounds, and to address changes in district mandates and policies? To what extent is the knowledge program graduates gained from coursework and clinical experiences sustainable over time in classroom practice? To what extent are mentor teachers prepared to support candidates in contextualizing academic knowledge for practice and adapting teaching practices for individuals and groups of students with different needs and experiences, and for changes in school and district policies and practices? To what extent do school administrators and colleagues value the knowledge and skills of program graduates and their contribution to the community of practice?

Table 1 includes the quality indicators, as defined by these three categories, extracted from the research literature.

TABLE 1 Evaluating the Clinical Experience Component of Preservice Teacher Preparation

Attribute	Quality Indicators	Sources of Evidence
Knowledge Input	<ul style="list-style-type: none"> • Academic knowledge from coursework can be observed, analyzed, or applied to practice in classrooms, schools, or communities. Academic knowledge for teaching can be adapted and contextualized for students with different needs and with diverse cultural and experiential backgrounds. • Mentor teacher preparation is aligned with program and clinical practices. 	<ul style="list-style-type: none"> • Candidate learning experiences and assignments from course syllabi, journals and other notes kept by candidates related to their clinical experiences, mentor teacher preparation syllabi, and mentor teachers' documentation.
Developmental Progression	<ul style="list-style-type: none"> • Course assignments include observation, documentation, analysis, and application to practice in clinical experiences. • Clinical experiences require the application of academic knowledge from coursework. • Application to practice is evident in monitoring and assessment data. The developmental progression in clinical experiences produces the expected outcome at each level and setting in attainment of teaching competence. Clinical sites are selected to support program and clinical practices. 	<ul style="list-style-type: none"> • Clearly stated goals for each level of clinical experience; candidate learning experiences and assignments from course syllabi; handbooks, guides, and instruction for clinical experiences; instruments for guidance, observation, feedback, and assessment of progress toward competent teaching during clinical experiences; instruments for observation, feedback, and assessment for determining goal attainment; and partnership agreements clearly delineate points of mutual benefit.
Outcomes and Impact	<ul style="list-style-type: none"> • Candidates develop the insight and flexibility for adapting teaching practices for students with different needs and those from diverse cultural and experiential backgrounds, and changes in curriculum standards and district mandates. Program graduates' knowledge and skills are valued by administrators and colleagues. 	<ul style="list-style-type: none"> • Documentation by mentors and supervisors during observations of clinical experiences; documentation in candidates' notations; summative assessments, including performance and licensure assessments; multi-year follow-up with program graduates; P-12 student learning outcomes; and feedback from administrators and colleagues.

Category #1: Knowledge Input

Canrinus et al. (2019) pointed out that:

Teacher education programs are plagued by fragmentation within program coursework and between theory and practice. Particularly concerning is the persistent challenge of connecting teacher education coursework to the work teacher candidates will be doing in classrooms. (p. 192)

The quality of knowledge within and distributed across courses or modules in a preservice teacher preparation program forms the foundation for learning to teach and for competent teaching. Learning to teach through the application of knowledge from coursework requires that the knowledge presented is coherent and interrelated, and that candidates can observe and document the knowledge in practice or that it can be used to analyze and interpret practices and students' responses in classrooms and schools. For example, Monte-Sano (2011) reported a study of preservice teachers' application of disciplinary understanding and pedagogical content knowledge in facilitating interpretive and evidentiary thinking among middle and high school students when studying history. This approach was learned in a methods course for history teaching. In observing and analyzing candidates' practices during their clinical experiences, the researcher observed three patterns as represented by three candidates in the following statement:

When taught to emphasize interpretive and evidence-based thinking in their methods classes, Gabrielle stressed both forms of thinking in the classroom, Lily focused on her students' interpretations by the end of the year, and Anna emphasized neither. Anna consistently represented history as a predetermined set of facts to be mastered, leaving little room for students' ideas. (pp. 268-269)

This finding led the researcher to raise three important questions:

What is the nature and impact of preservice teachers' disciplinary preparation before they enter teacher education? What is the impact of dispositions, vision, and beliefs or attitudes toward students on preservice candidates' learning during the teacher education program? What is the influence of teacher education coursework and field placements on novices' learning? (p. 270)

Assessing the extent to which candidates apply the pedagogy learned in methods courses during clinical experiences is important in determining the value of the knowledge base for teaching provided for candidates.

It is important to differentiate the *disciplinary understanding* and *pedagogical content knowledge* described in the study by Monte-Sano (2011) from "core practices" and "high leverage practices" believed to apply across disciplines (Ball & Forzani, 2009; Forzani, 2014; McDonald et al., 2013) that are part of a larger debate. This debate is especially important because it raises issues concerning *access and opportunities* for learning for traditionally underserved students and how teachers are prepared to meet their learning and developmental needs. McDonald et al. (2013) described the criteria for identifying core practices as:

- Practices that occur with high frequency in teaching,
- Practices that novices can enact in classrooms across different curricula or instructional approaches,
- Practices that novices can actually begin to master,
- Practices that allow novices to learn more about students and about teaching,
- Practices that preserve the integrity and complexity of teaching, and
- Practices that are research-based and have the potential to improve student achievement. (p. 380)

In a review of the research on the preparation of teachers for urban and high-needs contexts, Anderson and Stillman (2013), when considering high-leverage practices, found:

little evidence to suggest that PSTs [preservice teachers] come away from student teaching knowing how to use such approaches to facilitate learning among diverse students—in other words, how to re-contextualize, as opposed to merely replicate, approaches in different settings, for different purposes, and with different students. (p. 39)

Philip et al. (2019) argued that:

The very proposal that a set of core practices is central to countering long-standing inequities in education erases how schooling has been and continues to be intricately tied to the stratification of labor, normalization of unequal resources, assimilation, cultural genocide, cultural erasure, and White supremacy. (p. 258)

Barton et al. (2020) conducted a study involving three White teachers and students that included refugees and immigrants, where they sought to demonstrate that high leverage practices “are always a part of a larger complex practice of teaching, rather than reductive bits of know-how, especially when they are enacted at the juncture of local classroom practice and systemic injustice” (p. 17). These researchers made important points, but they did not demonstrate the effectiveness of core practices for teaching students historically underserved in the United States.

This discussion raises important questions about candidates’ ability to apply the knowledge base from coursework to practice and the trustworthiness of the knowledge base for teaching different student populations. The application of academic knowledge to practice and learning from professional experience are central functions of the clinical component of preservice teacher preparation. The extent to which candidates develop the ability to facilitate learning and development for underserved students is linked to the trustworthiness of the knowledge base for teaching included in their coursework and applied in clinical experiences, and the quality of guidance in applying the knowledge from coursework to practice.

Category #2: Developmental Progression

Achieving teaching competence requires developing the ability to apply academic knowledge to practice and to learn from practice how to make appropriate adjustments in supporting the growth and development of students with different needs and

those from diverse cultural and experiential backgrounds. Learning to apply academic knowledge to practice is a continuous process that begins with course assignments that require direct observation, documentation, analysis, and phased application to practice in classrooms and schools.

Progress toward competent teaching requires strategically guided, developmentally sequenced, cumulative, and increasingly complex clinical learning experiences linked to clearly delineated learning objectives for each level. This developmental progression requires (1) clearly stated expectations for each level; (2) a theoretical perspective that informs guidance, monitoring, and feedback for candidates; (3) training for teacher mentors and teacher educators; and (4) a clinical site that supports program and clinical practices (Arhar & Walker, 2002; Burns & Badiali, 2018; Caughlan & Jiang, 2014; Diez et al., 2010; Hoffman et al., 2015). In this developmental progression, candidates learn to apply academic knowledge from coursework and knowledge from professional practice during their clinical experiences. Candidates' progress toward competent teaching is assessed at the completion of each level and adjustments are made as necessary.

An example of this sequencing of interrelated clinical experiences and gradual assuming of responsibility for working with learners is the Alverno College expeditionary approach to teacher preparation that describes (1) an introductory experience that includes observation and working one-on-one with students, (2) a second experience that includes teaching a lesson while taking related coursework, (3) a third experience that involves taking methods courses with application to practice in planning and teaching six lessons observed by faculty who provide feedback, and (4) a fourth experience planning and teaching a sequence of eight consecutive lessons while taking an assessment course with two live observations by faculty. Student teaching follows the fourth clinical experience where candidates engage in two 9-week placements by gradually assuming responsibility for the first 3 weeks and full responsibility for teaching the whole class for 6 weeks (Diez et al., 2010).

Hollins and Warner (2021) provide an example of an approach to monitoring progress toward competent teaching using key assessments where candidates complete specific tasks that are documented and analyzed by applying academic knowledge from coursework and knowledge from practice in a written commentary. The key assessments are developmentally sequenced and aligned to state and national standards. The tasks in the key assessments guide the clinical experiences. Candidates and mentor teachers engage in reciprocal learning as key assessments are completed. Faculty learn about the challenges encountered in the application of academic knowledge from coursework to practice that inform adjustments in the course content and learning experiences. In this approach, mentor teachers are trained in the use of key assessments and become familiar with the academic knowledge in program coursework.

Category #3: Outcomes and Impact

The final indicator of quality is the extent to which the habits of mind and practices candidates learn during their clinical experiences promote the expected developmental outcomes for P-12 students (trustworthiness); are characterized by adaptability for learners with different needs and from diverse cultural and experiential backgrounds, and for changes in school district mandates and requirements (sustainability); and

what graduates know and can do is valued by school administrators and has a positive influence in the community of practice (impact). The efficacy of the knowledge that candidates gained from coursework and clinical experiences can be determined during preservice teacher preparation. Determining the impact of what graduates know and can do requires feedback from school administrators and colleagues. The sustainability of teaching practices requires following program graduates during their first years as teachers of record to determine the extent to which they apply and adapt practices learned in coursework and clinical experiences to accommodate diverse and traditionally underserved learners and changes in local school practices and policies (Boyd et al., 2009; Wetzel et al., 2018).

The ability to apply academic knowledge to practice and to adapt teaching practices for students with different needs and those from diverse cultural and experiential backgrounds is expected to be sustainable over time and to enable graduates to adapt their practices for changes in curriculum and district mandates without compromising learning and developmental outcomes for students. Program graduates' ability to adapt their practices for contextual changes is an indicator of the quality of clinical experiences supporting the application of knowledge from coursework to practice and learning from professional experience. For example, Boyd et al. (2009) followed program graduates through their first 2 years of teaching to determine the impact of teacher preparation program characteristics on elementary student learning outcomes. These researchers reported that:

one particular aspect of program preparation consistently related to student outcomes. Teacher preparation that focuses more on the work of the classroom and provides opportunities for teachers to study what they will be doing as 1st-year teachers seems to produce teachers who, on average, are more effective during their 1st year of teaching. (p. 434)

Furthermore, in a longitudinal study on the effectiveness of practice-based teacher preparation, researchers found that after 2 years in the classroom as teachers of record, program graduates continued to practice what was learned from their coursework and classroom participation during their clinical experiences (Wetzel et al., 2018). The researchers described how teachers negotiated tensions between the values and practices at the schools where they taught and what had been learned in their preservice program, including their own values and visions for their teaching and their students. Program graduates adapted their teaching practices to meet the needs of their students and new school and district mandates.

Discussion

When the evaluation of the clinical component of teacher preparation is incorporated into the *program design* and *ongoing practices*, it is more productive, effective, and cost efficient. For example, continuous improvement in the efficacy of course content is supported when questions in Category #1 are incorporated into the design of course content and candidates' learning experiences. Addressing these questions in observation instruments and other data collection tools used during clinical experiences where feedback on the evidence from clinical experiences is made available, faculty can

appropriately adjust course content and learning experiences to increase efficacy. The questions in Category #2 build on and extend those in Category #1. Evidence based on Category #2 questions provides insight on the efficacy of the learning experiences and guidance at each level in the developmental sequence. This evidence can be used to adjust learning experiences and the guidance candidates receive during the developmental progression. The questions in Category #3 provide evidence of trustworthiness, sustainability, and impact of the knowledge and skills candidates develop based on the experiences provided in their teacher preparation program. The questions in Category #3 provide evidence of the extent to which candidates use their knowledge and skills to consistently enable P-12 students to meet developmental and learning expectations, the extent to which candidates' knowledge is sustainable and adaptable to changes in the school and community context, and the extent to which candidates' contributions to the teaching profession are valued by colleagues and administrators.

Implications for Policy

Cochran-Smith (2004) argued that when considering policy reforms for teacher preparation, "the point is to use empirical evidence to guide policy makers in their investment of finite human and fiscal resources in various aspects of the preparation and professional development of K-12 teachers" (p. 297). Cochran-Smith and Fries (2005) note that the assumption undergirding teacher preparation policy reforms is that the achievement of P-12 students can be improved by manipulating "broad aspects of teacher preparation" (p. 92). In the context of the clinical component of teacher preparation, policy has historically attempted to manipulate duration and/or number of clinical experiences, settings of clinical experience, and qualifications of mentor teachers measured by years of experience and graduate degree attainment. However, our analysis indicates that, to date, little evidence exists that manipulation of these variables correlates with, let alone causes, improvement in P-12 student learning growth and development.

As such, this paper does not recommend state or national policies mandating particular structural elements of clinical experiences for preservice teacher preparation. Rather than mandating the number of contact hours in clinical experience, policymakers might emphasize the need for teacher preparation programs to establish and demonstrate a developmental progression of clinical experiences leading to a candidate's ability to apply academic knowledge to practice (see Categories #1 and #2 above). Rather than mandate particular settings for clinical experiences, policymakers might evaluate teacher preparation programs in part on the demonstrated ability of candidates to adapt and contextualize academic knowledge to practice for a variety of learners (see Category #3 above). Rather than focus on generic experiential requirements or educational attainment, policymakers might recognize that successful facilitation of clinical experiences requires reciprocal learning among the teacher candidate, mentor teacher, and university supervisor or program faculty, and provide incentives to develop that reciprocal learning structure.

The recommendations made in this paper have generally been predicated on the understanding that evaluation and improvement of the clinical component of preservice teacher preparation is the responsibility of the profession of teacher education.

Zeichner (2021) noted that “clinical experiences, which are the most expensive and labor intensive aspect of teacher education programs, have been consistently underfunded and staffed by the least powerful and transient staff within university programs” (p. 3). Furthermore, Zeichner pointed out that mentor teachers are, in particular, usually underprepared, poorly supported, and poorly compensated. Efforts to address these issues have relied on temporary grants and have been generally unsustainable once the terms of the grant have ended. This paper argues that improvement of preservice teacher preparation is incumbent on establishing and maintaining conceptual and structural coherence within and across program courses and clinical experiences, continuity in the developmental sequencing of increasingly complex learning, and consistency over time in the academic knowledge and clinical experiences forming the program. However, the development of coherence, continuity, and consistency requires significant and sustained investment, investment that has not historically occurred in teacher preparation broadly, nor in clinical experience specifically. As such, our analysis suggests that a promising policy intervention would be the appropriation of significant long-term public funding to support clinical components within quality preservice teacher preparation programs.

CONCLUSION

The discussion in this paper has presented four interrelated points: (1) teaching and teacher preparation are academically-based professional practices; (2) clinical experiences in preservice teacher preparation are designed to provide opportunities for candidates to learn to contextualize and apply academic knowledge to practice, and to learn from practice; (3) the primary role of mentor teachers is to support candidates in contextualizing academic knowledge to practice for individuals and specific groups of students; and (4) the evaluation of clinical experiences addresses the efficacy of supporting candidates in contextualizing and applying academic knowledge to practice, learning from practice, and the adaptability and sustainability of what was learned. The approach to the evaluation of clinical experience addressed in this discussion brings attention to specific characteristics or attributes in different types of clinical experiences, the identification of quality indicators, and sources of evidence.

A central characteristic of clinical experiences across the different approaches, configurations, and locations, with few exceptions, is the cognitive apprenticeship theoretical perspective on learning to teach. This perspective involves a process of representation and approximation where an experienced teacher models “good teaching practices” and the candidate emulates these practices. This cognitive apprenticeship perspective prioritizes *teaching as performance* over *teaching as the facilitation of learning* with the risk of replicating the mentor teacher’s strengths and weaknesses and perpetuating the existing disparities in learning outcomes for traditionally underserved students. The recent movement toward “core practices” and “high-leverage practices” where candidates are encouraged to rehearse specific “teaching moves” is an endorsement of the cognitive apprenticeship model (Forzani, 2014). The proponents of these practices have not provided evidence of improvements in learning outcomes for underserved students.

The National Center for Teacher Residencies incorporates the cognitive apprenticeship perspective with modifications that include a focus on the preparation of teachers for “high-needs” schools, careful selection of candidates with commitment to teaching underserved students, rigorous standards for the selection and training of mentor teachers, alignment of coursework with classroom experiences, ongoing learning and feedback cycles, and induction support for graduates (Torrez & Krebs, 2020). Each of the statewide initiatives we reviewed for California, Louisiana, and Texas follow the guidelines set by NCTR, implemented a competency- or standards-based curriculum for teacher preparation, incorporated specific approaches for teaching underserved students such as culturally relevant pedagogy, and maintain the same standards for certification of residents as for other teacher candidates. Louisiana has implemented a statewide initiative that the 1-year teacher residency is required for all teacher candidates. These statewide initiatives are too recent to determine the impact on learning outcomes for traditionally underserved students. However, the Dallas Teacher Residency claims that its graduates placed in urban schools outperform other first year teachers placed in similar contexts; however, the evidence is incomplete.

Improving learning outcomes for underserved students requires changes in teaching practices and teacher preparation. Important aspects of improving teaching and teacher preparation include explicating the purpose and process of learning from practice in clinical experiences and the roles of the candidate, cooperating or mentor teacher, and the program supervisor. The role of the cooperating teacher is a central factor in the candidate’s learning to contextualize academic knowledge in practice for specific individuals and groups of students, and in compliance with school and district policies and practices. The cooperating teacher learns from the candidate and program supervisor about new knowledge and research presented in coursework. The program supervisor learns from the candidate and cooperating teacher about the process and challenges in contextualizing academic knowledge for practice. The knowledge that the program supervisor learns from practice is shared with colleagues and used for making adjustments as needed to improve the presentation of academic knowledge in courses. This reciprocity in learning among the candidate, cooperating teacher, and program supervisor simultaneously improves practices in teaching and teacher preparation. The students attending partner schools benefit from this reciprocal learning among those responsible for their growth and development in the present and in the future.

Community-based clinical experiences hold great promise when focused on providing candidates with opportunities for gaining greater understanding of the knowledge, experiences, and values of underserved students that can be used in contextualizing the curriculum and developing meaningful learning experiences. During community-based clinical experiences, candidates can learn to appreciate and value the assets, accomplishments, and challenges in urban and underserved communities and how schools contribute to ameliorating or maintaining existing conditions. However, many community-based experiences fall short in providing such opportunities when the primary focus is on changing candidates’ attitudes and beliefs and on recruitment and retention in “hard to staff” schools. There is scant evidence that community-based clinical experiences enable candidates to improve learning outcomes for traditionally underserved students, or that changes in attitudes and beliefs or teachers remaining in urban schools for longer periods of time generate such effects.

Evaluation of the clinical component of teacher preparation programs holds promise for improving the efficacy of teaching and teacher preparation. The challenge is in identifying quality indicators with the highest value in developing teaching efficacy. Traditionally, program evaluation has included the clinical component with a focus on specific inputs and outputs. This approach to program evaluation has not consistently resulted in graduates who foster improvements in learning outcomes for underserved students nor has this been a specific aim. Traditional approaches to program evaluation have sought to ensure that specific standards are met. Standards are measures or criteria for performance. In this discussion, indicators represent the conditions for learning to apply knowledge from coursework to practice and learning from professional practice. The proposed evaluation protocol for the clinical component of teacher preparation addresses different indicators for inputs and outputs and includes the developmental progression during clinical experiences. The indicators in the proposed evaluation are based on empirical research evidence that includes underserved students. However, this research does not address the efficacy of the proposed approach to evaluating the clinical component of teacher preparation or its promise for enabling candidates to improve learning outcomes for underserved students. More research is needed to validate this approach. The promise of this approach is in its emphasis on the application of academic knowledge to practice and learning from practice to adjust instruction for students with different needs and those from diverse cultural and experiential backgrounds.

Finally, the evaluation approach for the clinical component of teacher preparation recommended in this paper requires that program providers and school partners take specific action to improve the design of clinical experiences related to quality indicators for the knowledge base, the developmental progression for the clinical experience, the documentation of teaching competence, and the outcomes and impact of the practices of program completers. The evidence supporting these quality indicators is of particular interest to state and national program accreditors seeking to improve teacher preparation and P-12 student learning outcomes. The work involved in improving the design and practices in the clinical component of teacher preparation requires policy incentives at the state and national level that provide necessary resources.

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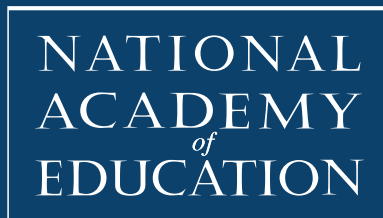
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